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Serial No.: 09/741,095
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Group Art Unit: 1734

Listing of Claims:

Claim 1 (currently amended): A method of manufacturing laminated beams, wherein a plurality of lamellas are assembled by gluing them together under pressure, comprising the steps of:

providing a number of lamellas to be assembled;
applying glue to at least one surface of each said lamella;

assembling the lamellas; and
subjecting the assembled lamellas to pressure in a press;

wherein a lamella stacking time is defined by a lag between said glue application and pressure application steps; and

wherein said glue application step includes controlling an amount of at least one component of said glue applied to a said lamella at a specific point thereon as a function of said lamella stacking time, said at least one controlled glue component being applied to said lamella in a manner such that the amount of said component varies as a function of the relative position of the said lamella in the lamella assembly from a first applied lamella constituting a lower surface of said assembly to a last applied lamella constituting an upper surface.

Claim 2 (previously presented): The method according to claim 1, wherein the glue comprises an adhesive having multiple components, one said adhesive component comprising a hardener and wherein the amount of one of said adhesive components is controlled so as to control a ratio of said hardener to said other adhesive components as a function of said lamella stacking time.

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Claim 3 (previously presented): The method according to claim 2, wherein the glue is a two-component adhesive comprising hardener and a glue, the ratio of hardener to glue is controlled to be lower for longer lamella stacking times.

Claim 4 (previously presented): The method according to claim 1, wherein the glue is a one-component glue, and the amount of said glue applied to each said lamella is increased as a function of increased lamella stacking time.

Claim 5 (previously presented): The method according to claim 4 wherein the amount of glue applied to each lamella is constant over the surface of said lamella, but varies between lamellas.

Claim 6 (previously presented): The method according to claim 4, wherein the first lamella in a series of lamellas receives a smaller amount of glue than subsequent lamellas.

Claim 7 (previously presented): The method according to claim 4, wherein the amount of glue applied to each lamella varies over the surface of said lamella.

Claim 8 (previously presented): The method according to claim 4, wherein the amount of glue applied is controlled by controlling the speed of movement of the lamella(s) during glue application.

Claim 9 (previously presented): The method according to claim 8, wherein the amount of glue applied is controlled by controlling the rate of application of glue onto the surface of each lamella.

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Claim 10 (previously presented): The method according to claim 8, wherein the speed of movement is varied from one lamella to another.

Claim 11 (currently amended): The method according to claim 8, wherein the speed of movement is varied during the glue application on each lamella.

Claim 12 (original): The method according to claim 11, wherein the speed of movement is varied stepwise or continuously.

Claim 13 (original): The method according to claim 9, wherein the application rate is varied stepwise or continuously.

Claim 14 (previously presented): An apparatus for the manufacturing of laminated beams, wherein a plurality of lamellas are assembled by gluing them together under pressure, comprising

- a lamella feeder;
- a glue applicator;
- a lamella stacking unit;
- a control unit; and
- a press;

said control unit being programmable to run at least one of a control sequence for the glue applicator and the lamella feeder to provide an optimal applied glue amount which varies as a function of a lamella stacking time defined as the time between glue application and pressing for a given lamella.

Claim 15 (previously presented): The apparatus as claimed in claim 12, wherein the control sequence is adapted to control the speed of movement of the feeder, and thereby of the lamellas through the glue applicator.

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Claim 16 (previously presented): The apparatus as claimed in claim 14, wherein the control sequence is adapted to control the rate of glue application to the lamellas.

Claim 17 (previously presented): An apparatus for the controlled application of glue to lamellas to be assembled to a laminated beam, comprising

- a lamella feeder;
- a glue applicator; and
- a control unit;

said control unit being programmable to run at least one of a control sequence for the glue applicator and the lamella feeder to provide an optimal applied glue amount which varies as a function of a lamella stacking time defined as the time between gluing application and pressing for a given lamella.

Claim 18 (new): A method of manufacturing laminated beams, wherein a plurality of lamellas are assembled by gluing them together under pressure, comprising the steps of:

- providing a number of lamellas to be assembled;
- applying glue to at least one surface of each said lamella;
- assembling the lamellas; and
- subjecting the assembled lamellas to pressure in a press;

wherein a lamella stacking time is defined by a lag between said glue application and pressure application steps; and

wherein the step of subjecting the assembled lamellas to pressure includes a non-linear application of pressure over a length of said assembled lamellas, said non-linear pressure application varying over said lamella length as a function of time, thereby resulting in a lamella stacking time that varies along said length of said assembled lamellas as well as between

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individual lamellas in the lamella assembly; and

wherein said glue application step includes controlling an amount of at least one component of said glue applied to a said lamella at a specific point thereon as a function of both the relative position of said lamella in said lamella assembly and the location of said specific point along the length of said lamella assembly.